WHO IS IT FOR ?

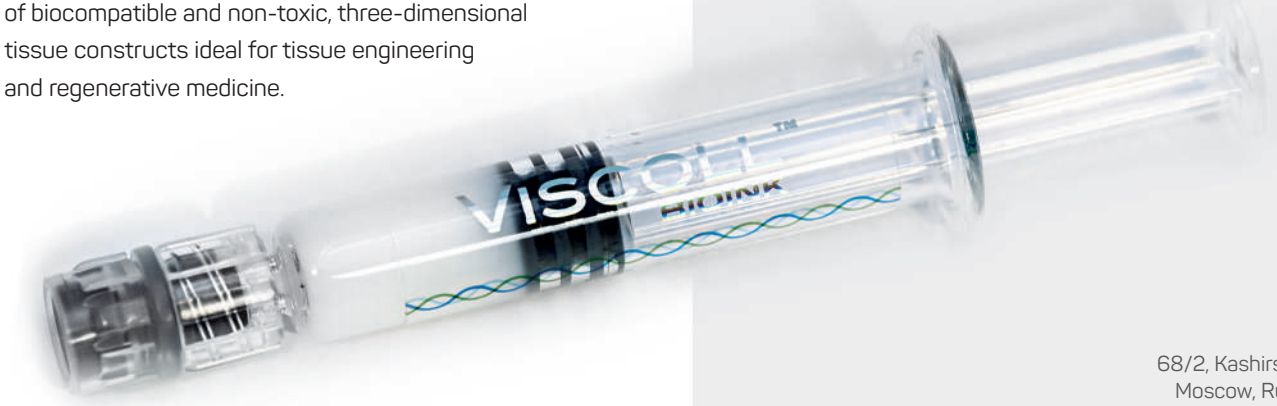
Viscoll is our new line of versatile collagen products suitable for any 3D bioprinter. It provides life science companies, researchers and innovators working in biofabrication with a powerful tool which offers unprecedented capabilities in experiments.

HOW DOES IT WORK?

A bioink is a concentrated sterile solution of highly purified Type 1 collagen which can be used straightaway; either to print three-dimensional scaffolds directly, or blended with cell suspensions to print cell-laden hydrogels.

WHAT IS IT?

Our Viscoll range of collagen products has been designed for the engineering of biocompatible and non-toxic, three-dimensional tissue constructs ideal for tissue engineering and regenerative medicine.



PRINTABILITY

IN SITU:

The highly purified Viscoll collagen solution is delivered sterile and has the physical properties required for direct printing using a 3D bioprinter.

MULTI-LEVEL COMPLEX GEOMETRY:

Collagens from the Viscoll product range have physical properties to enable complex 3D bioprinting with multi-level geometry for any research purposes.

POLYMERIZATION:

Viscoll rapidly polymerizes at temperatures from 30°C to 37°C, forming stable three-dimensional structures with a resolution of up to 0.3 mm from the collagen hydrogel.

CONTACTS

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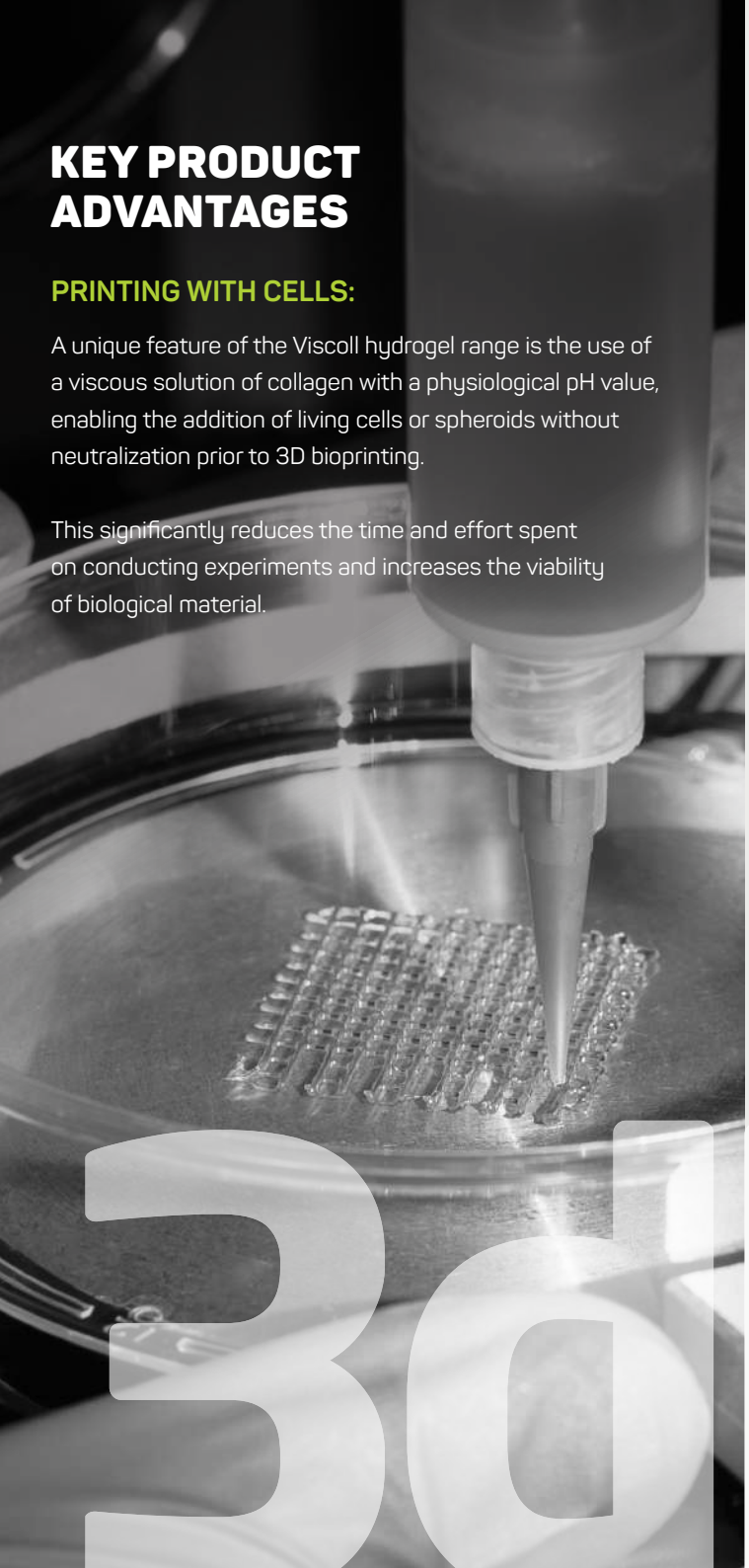
3dbio
CREATING FUTURE POSSIBILITIES

VISCOLL™
BIOINK

VISCOLL
COLLAGEN

new line of versatile collagen products suitable for any 3D bioprinter

VISCOLL COLLAGEN



KEY PRODUCT ADVANTAGES

PRINTING WITH CELLS:

A unique feature of the Viscoll hydrogel range is the use of a viscous solution of collagen with a physiological pH value, enabling the addition of living cells or spheroids without neutralization prior to 3D bioprinting.

This significantly reduces the time and effort spent on conducting experiments and increases the viability of biological material.

BIOCOMPATIBLE:

Collagen Viscoll is a naturally sourced organic polymer, chemically refined from traces of proteins and glycoproteins; it is non-immunogenic for bioprinted constructs after *in vivo* implantation.

Such tissue constructs may be suitable for implantation into animal tissues immediately after fabrication. Viscoll collagen is already highly bioadaptable, as confirmed in a series of published scientific studies, ensuring the biocompatibility of the implant.

CUSTOMIZABLE:

- **Viscoll**: a solution of Type I porcine collagen. The main product in the range, suitable for direct printing with cells.

- **Viscoll S**: variations of the Type I collagen are available for other species including: cow, pig, mouse and human.

  In order to increase biocompatibility and resolve specific tissue engineering problems, the composition of Viscoll collagen hydrogel can be supplemented with extracellular matrix components or growth factors (e.g., fibronectin, laminin, fibrinogen, human platelet lysate, etc.) according to customer requirements and specifications.

CONSISTENT QUALITY AND CONTENT:

Each batch of Viscoll collagen is identical in terms of quality and content, meaning that the Viscoll product range can be used to achieve consistent results in experiments.

PLUG AND PRINT – EXCELLENT USABILITY:

The collagen Viscoll product line is unique among available commercial hydrogels for 3D bioprinting due to its biochemical properties and the entire spectrum of biotechnological challenges it solves.

The wide range of collagen concentration allows researches to produce designs with different mechanical densities and rates of bioresorption depending on their biomedical purpose and the type of cells being used – fibroblasts, multipotent mesenchymal stromal cells, pancreatic islet cells, and so on.

The presence of any collagen Types I-V or other ECM proteins (Vitronectin, Fibronectin, Laminin) in the hydrogel determines the specific tissue type of the constructs: skin, bone or cartilage tissue, blood vessels, and parenchyma of internal organs.